WHAT IS CLAIMED IS:

1. A microchip, comprising:

a flow pass for containing a reaction;

a detection target region wherein light from said reaction is to be generated, said detection target region being located within at least a portion of said flow pass; and

an optical path, at least a part of said optical path being located within said detection target region, for detecting said light from said reaction, said light exiting to a light detection area;

wherein a length of said part of said optical path is greater than a depth of said flow pass.

2. A microchip in accordance with Claim 1, wherein said light is generated in response to excitation light from a light source.

3. A microchip in accordance with Claim 1, wherein said length of said part of said optical path is greater than a width of said flow pass.

4. A microchip, comprising:

a flow pass for containing a reaction; and

a detection target region, located within at least a portion of said flow pass, wherein light from said reaction is generated, said light passing through said detection target region to a light detection area;

wherein said detection target region is larger than said light detection area.

5. A microchip in accordance with Claim 4, wherein said light is generated in response to excitation light from a light source.

6. A microchip, comprising:

a flow pass for containing a reaction;

a detection target region wherein light from said reaction is to be generated, said detection target region being located within at least a portion of said flow pass; and

an optical path for detecting said reaction, said optical path oriented in an extension direction of said flow pass.

7. A microchip in accordance with Claim 6, wherein said light is generated in response to excitation light from a light source.

8. A microchip in accordance with Claim 6, wherein a length of said detection target region is greater than a depth and a width of said flow pass.

9. A microchip in accordance with Claim 6 further comprising:

a plurality of supply inlets for supplying a plurality of fluids; and

a plurality of branch flow passes, respectively connecting said plurality of supply units to said flow pass.

10. A microchip in accordance with Claim 9 further comprising a plurality of micro pumps respectively disposed in said plurality of branch flow passes for pumping said fluids into said flow pass.

11. A microchip in accordance with Claim 9 further comprising an area in said flow pass for anchoring a solid specimen.

12. A microchip in accordance with Claim 6 further comprising a reagent fixing unit located in said flow pass.

13. A microchip in accordance with Claim 6, wherein said optical path comprises a light guide unit, disposed adjacent to an end of said detection target region, for conducting said light between said detection target region and a light detection area.

14. A microchip in accordance with Claim 13, wherein said light guide unit comprises an optical fiber.

15. A microchip in accordance with Claim 13, wherein said optical path further comprises a second light guide unit connected to a second end of said detection target region.

16. A microchip in accordance with Claim 13, wherein said light guide unit comprises an optical waveguide.

17. A microchip, comprising:

a flow pass for containing a reaction;

a detection target region wherein light from said reaction is to be generated, said detection target region being located within at least a portion of said flow pass;

a reflective surface formed on at least a portion of a surface of said detection target region; and

an optical path for detecting said reaction;

wherein said reflective surface is adapted to reflect

said light so as to increase a length of said optical path beyond a length of said detection target region.

18. A microchip in accordance with Claim 17, wherein said light is generated in response to excitation light from a light source.

19. A microchip in accordance with Claim 17, wherein a length of said optical path is greater than a depth and a width of said flow pass.

20. A microchip in accordance with Claim 17, wherein said reflective surface is formed on a top surface and a bottom surface of said detection target region of said flow pass.

21. A microchip in accordance with Claim 17, wherein said reflective surface comprises a metallic film.

22. A microchip in accordance with Claim 17, further comprising a lens disposed adjacent to an end of said detection target region of said flow pass.

23. A microchip in accordance with Claim 22, wherein said lens is adapted to condense said light as said light exits said detection target region of said flow pass and to direct said light to a light detection area.

24. A microchip in accordance with Claim 17 further comprising:

a plurality of supply inlets for supplying a plurality of fluids; and

a plurality of branch flow passes, respectively connecting said plurality of supply units to said flow pass.

25. A microchip in accordance with Claim 24 further comprising a plurality of micro pumps respectively disposed in said plurality of branch flow passes for pumping said fluids into said flow pass.

26. A microchip in accordance with Claim 24 further comprising an area in said flow pass for anchoring a solid specimen.

27. A microchip in accordance with Claim 17 further comprising a reagent fixing unit located in said flow pass.

28. A microchip, comprising:

a substrate;

a flow pass for containing a reaction, said flow pass formed on a first side of said substrate;

a detection target region wherein light from said reaction is to be generated, said detection target region being located within at least a portion of said flow pass;

a condensing lens unit for condensing said light, said condensing lens unit formed on a second side of said substrate.

29. A microchip in accordance with Claim 28, wherein said light is generated in response to excitation light from a light source.

30. A microchip in accordance with Claim 28, wherein said condensing lens unit comprises a convex lens.

31. A microchip in accordance with Claim 28, wherein said condensing lens unit possesses optical power in a direction perpendicular to an extension direction of said flow pass.

32. A microchip in accordance with Claim 28, wherein said condensing lens unit has a curvature in an extension direction of said flow pass.

33. A microchip in accordance with Claim 28, wherein said condensing lens unit has a curvature in a cross-flow direction of said flow pass.

34. A microchip in accordance with Claim 28 further comprising:

a plurality of supply inlets for supplying a plurality of fluids; and

a plurality of branch flow passes, respectively connecting said plurality of supply units to said flow pass.

35. A microchip in accordance with Claim 34 further comprising a plurality of micro pumps respectively disposed in said plurality of branch flow passes for pumping said fluids into said flow pass.

36. A microchip in accordance with Claim 34 further comprising an area in said flow pass for anchoring a solid specimen.

37. A microchip in accordance with Claim 34 further comprising a reagent fixing unit located in said flow pass.

38. A method of manufacturing a microchip, comprising the steps of:

providing a substrate;

forming a core area of an optical waveguide on said substrate;

placing a film on said core area to form a clad area;

patterning a portion of said core area and said clad area to form an portion of a flow pass therein; and

placing a cover over said substrate.

39. A method in accordance with Claim 38, wherein said step of forming said core area comprises a SiO2 patterning process.

40. A method in accordance with Claim 38, wherein step of patterning comprises an anisotropic dry etching process.

41. A method of manufacturing a microchip, comprising the steps of:

providing a substrate;

forming a reflective film on said substrate;

forming a protective film on said reflective film on said substrate;

providing a cover;

forming a reflective film on said cover;

forming a protective film on said reflective film on said cover; and

placing said cover over said substrate.

42. A method in accordance with Claim 41, wherein said reflective film comprises a metallic material.

43. A method of manufacturing a microchip, comprising the steps of:

providing a substrate;

forming a condensing lens on one side of said substrate;

forming a flow pass on a second side of said substrate; and

placing a cover over said substrate proximate said flow pass.

44. A method in accordance with Claim 43, wherein said condensing lens has a curvature in an extension direction of said flow pass.

45. A method in accordance with Claim 43, wherein said condensing lens has a curvature in a direction perpendicular to an extension of said flow pass.